A1 cont. solvents, esters and ketones, the concentration of said compound of formula (1) in said surface treatment agent being in the range of 0.001 to 5% by weight.

4. (Amended) A patterning process for forming a resist pattern on a substrate comprising the steps of applying to the substrate a surface treatment agent consisting essentially of at least one compound of the following compositional formula:

$$R^1R^2_a(OX)_bSiO_{(3-a-b)/2} \qquad (1)$$

wherein R^1 is a $-(CH_2)_nY$ moiety in which Y is epoxycyclohexyl, glycidoxy, N-β-aminoethylamino, amino, N-phenylamino, mercapto or isocyanate, and n is an integer from 0 to 4; R^2 is a monovalent hydrocarbon group of 1 to 4 carbons; X is hydrogen or a monovalent hydrocarbon group of 1 to 4 carbons; "a" is 0 or 1, and "b" is 0, 1 or 2 when "a" is 0, and "b" is 0 or 1 when "a" is 1, and a solvent selected from the group consisting of alcohols, aromatic solvents, esters and ketones, the concentration of said compound of formula (1) being in the range of 0.001 to 5% by weight,

A2 baking at 80 to 120°C, and

applying thereon a photoresist composition and patterning the photoresist composition.

Please enter the following new claims:

7. The patterning process of claim 4, wherein the compound of formula (1) is applied onto the substrate to a thickness of up to 0.1 μm.

8. The patterning process of claim 4, wherein R^2 is methyl, ethyl, propyl, butyl, or alkenyl.

A3 9. The patterning process of claim 4, wherein R^2 is vinyl or propyl.

10. The patterning process of claim 4, wherein Y is epoxycyclohexyl, N-β-aminoethylamino, amino, N-phenylamino, mercapto or isocyanate.

11. The patterning process of claim 4, wherein the compound of formula (1) comprises up to 200 silicon atoms.

12. A surface treatment agent according to claim 1, wherein R^2 is methyl, ethyl, propyl, butyl, or alkenyl.

13. A surface treatment agent according to claim 1, wherein R^2 is vinyl or propyl.

14. A surface treatment agent according to claim 1, wherein Y is epoxycyclohexyl, N-β-aminoethylamino, amino, N-phenylamino, mercapto or isocyanate.

15. A surface treatment agent according to claim 1, wherein the compound of formula (1) comprises up to 200 silicon atoms.

16. A surface treatment agent according to claim 1 on a substrate which is a metal or metal oxide substrate.

17. A surface treatment agent according to claim 1 on a substrate which is aluminum, iron, nickel, copper, tantalum, gold, or an oxide thereof.

A3 cont.

18. A surface treatment agent according to claim 1 on a substrate which is up to 0.1 μm thick.

19. A surface treatment agent which, when applied to a substrate prior to formation of a resist pattern thereon, strengthens adhesion between the substrate and the resist pattern, the surface treatment agent comprising at least one compound of the following compositional formula:

$$R^1R^2_a(OX)_bSiO_{(3-a-b)/2} \qquad (1)$$

wherein R^1 is a $-(CH_2)_nY$ moiety in which Y is epoxycyclohexyl, glycidoxy, N-β-aminoethylamino, amino, N-phenylamino, mercapto or isocyanate, and n is an integer from 0

to 4; R^2 is a monovalent hydrocarbon group of 1 to 4 carbons; X is hydrogen or a monovalent hydrocarbon group of 1 to 4 carbons; "a" is 0 or 1, and "b" is 0, 1 or 2 when "a" is 0, and "b" is 0 or 1 when "a" is 1.

A3 cont.

20. A patterning process comprising the steps of applying the surface treatment agent of claim 19 to a substrate and baking, then applying thereon a photoresist composition and patterning the photoresist.--